

APR 22 2005

**FAX TRANSMITTAL COVER SHEET**

**CONLEY ROSE, P.C.**  
**600 Travis, Suite 7100**  
**Houston, Texas 77002**  
Fax Number: (713) 238-8008  
Telephone Number: (713) 238-8000

ORIGINAL WILL FOLLOW VIA:

- ☐ MAIL  
☐ INTERNATIONAL AIRMAIL  
☐ COURIER  
☒ WILL NOT FOLLOW  
☐ HAND DELIVERY  
☐ WITH ENCLOSURE(S)  
☐ WITHOUT ENCLOSURE(S)

**PLEASE DELIVER THE FOLLOWING PAGES IMMEDIATELY TO:**

NAME: MAIL STOP AMENDMENT

FIRM: U.S. PATENT &amp; TRADEMARK OFFICE

CITY: ALEXANDRIA, VIRGINIA

FAX NO: 703-872-9306

REMARKS: Serial No. 10/608,734, filed June 27, 2003  
Attached hereto is a Response To Office Action Mailed March 8, 2005

Total Number of Pages (Including This One): Fifteen (15)

FROM: Daniel J. Krueger, Direct Dial No. 713/238-8055

DATE: April 22, 2005

ATTORNEY DOCKET NO. 2149-00300

IF YOU DO NOT RECEIVE ALL THE PAGES,  
PLEASE CALL BACK AS SOON AS POSSIBLE.

*This facsimile, and the information it contains, is intended to be a confidential communication only to the person or entity to whom it is addressed. If you have received this facsimile in error, please notify us by telephone at the above telephone number and return the original to this office by mail.*

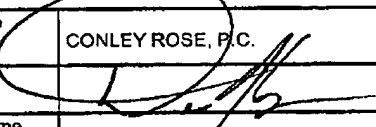
PTO/SB/21 (09-04)

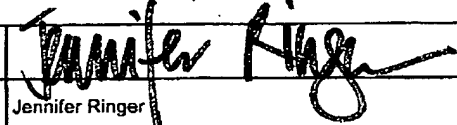
Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b>  <small>(to be used for all correspondence after initial filing)</small>	Application Number	10/608,734	
	Filing Date	June 27, 2003	
	First Named Inventor	Arthur E. BARNES	
	Art Unit	2863	
	Examiner Name	T.S. Lau	
Total Number of Pages in This Submission	15	Attorney Docket Number	2149-00300

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Fax Coversheet.
Remarks		
<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT</b>		
Firm Name	CONLEY ROSE, P.C.	
Signature		
Printed name	Daniel J. Krueger	
Date	April 22, 2005	Reg. No. 42,771

CERTIFICATE OF TRANSMISSION/MAILING		
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:		
Signature		
Typed or printed name	Jennifer Ringer	Date April 22, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/17 (12-04)

Approved for use through 07/31/2008. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004.  
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).**FREE TRANSMITTAL**  
**For FY 2005**☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$ ) 1000**Complete if Known**

Application Number	10/608,734
Filing Date	June 27, 2003
First Named Inventor	Arthur E. BARNES
Examiner Name	T. S. Lau
Art Unit	2863
Attorney Docket No.	2149-00300

**METHOD OF PAYMENT (check all that apply)**
☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: 03-2769 Deposit Account Name: CONLEY ROSE, P.C.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.18 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES****Fee Description**

	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
22 - 64 or HP =	x					
HP = highest number of total claims paid for, if greater than 20						
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)			
11 - 6 or HP =	5	x 200				
HP = highest number of independent claims paid for, if greater than 3						

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x		

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other: \_\_\_\_\_

**SUBMITTED BY**

Signature

Name (Print/Type) Daniel J. Krueger

Registration No. 42,771  
(Attorney/Agent)

Telephone (713) 238-8000

Date April 22, 2005

This collection of information is required by 37 CFR 1.138. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

COPY

PTO/SB/17 (12-04)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person shall be required to furnish information in a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004.  
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).**FEE TRANSMITTAL**  
**For FY 2005**☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 1000

**Complete if Known**

Application Number	10/608,734
Filing Date	June 27, 2003
First Named Inventor	Arthur E. BARNES
Examiner Name	T. S. Lau
Art Unit	2863
Attorney Docket No.	2149-00300

**METHOD OF PAYMENT (check all that apply)**
☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: 03-2769 Deposit Account Name: CONLEY ROSE, P.C.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below☐ Charge fee(s) indicated below, except for the filing fee☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES****Fee Description**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
22	- 64 or HP =	x	=			
HP = highest number of total claims paid for, if greater than 20						
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)			
11	- 6 or HP =	5	x 200 =			
HP = highest number of independent claims paid for, if greater than 3						

**3. APPLICATION SIZE FEE**


If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other: \_\_\_\_\_

SUBMITTED BY		Registration No. 42,771	Telephone (713) 238-8000
Signature		(Attorney/Agent)	Date April 22, 2005
Name (Print/Type) Daniel J. Krueger			

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 150, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 and select option 2.

APR 22 2005

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Arthur E. BARNES	§	Confirmation No.:	7757
		§		
Serial No.:	10/608,734	§	Group Art Unit:	2863
		§		
Filed:	June 27, 2003	§	Examiner:	Tung S. LAU
		§		
For:	Measuring Discontinuity In Seismic Data	§	Atty. Docket No.:	2149-00300
		§		
		§	Client Ref No.:	2003-IP-011636

## RESPONSE TO OFFICE ACTION OF MARCH 8, 2005

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 23313-1450

April 22, 2005

Dear Sir:

This paper is submitted in response to the above-named office action to further highlight why the application is in condition for allowance. In response to the Office Action of March 8, 2005, please amend the above-identified application as follows:

**Amendments to the Claims** begin on page 2 of this paper.

**Remarks** begin on page 10 of this paper.